

1 - - - - - M E F Hu p53
 1 - - - - - M Hu p73β
 1 - - - - - M Hu p63γ
 1 M N F E T S R C A T L Q Y C P D P Y I Q R F I E T P A H F S W K E S Y Y R S A M Mu p63γ

4 E Q C D F E V F P P L S O E T F S D L N K L L P E - - - N N V L S P - - - - Hu p53
 2 A C T A T S - E D G G T T - F E H L W S S L E P D - S T Y F - - - - D Hu p73β
 2 S C S T O T N E F - L S P E V - F Q H I N D F L E Q P I C S V O P I D L N F V D Hu p63γ
 41 S C S T O T S E F - L S P E V - F Q H I N D F L E Q P I C S V O P I E L N F V D Mu p63γ

35 L P - - - - - S Q A M D D L M L S P D D I E Q W F T E D P C E Hu p53
 31 L P O S S R G N N E V V G G T D S S - M D V F H L E G - M T T S V M A Q F N L - Hu p73β
 40 E L S E D G A T N K I E I S M D C I R M Q D S D L S D P N W E Q Y T - - - N L G Hu p63γ
 79 E L S E N G A T N K I E I S M D C I R M Q D S D L S D P N W E Q Y T - - - N L G Mu p63γ

61 - - - - - G E A P R M F - - - E A T H P V - - - P A R A A P T - P A A R A P A E Hu p53
 68 L S S T H D Q M - - - S S R A A S A S P Y - T R E H A A - S V P T - H S P Y A Hu p73β
 77 L L N S M Q Q I Q N G S S - - - S T S P Y N T - D H A Q N S V - T A P S E Y A Hu p63γ
 116 L L N S M Q Q I Q N G S S - - - S T S P Y N T - D H A Q N S V - T A P S E Y A Mu p63γ

90 S W D L S S V - - - S Q - - - - - T - Y G S V G P R L G F L H S C T A K Hu p53
 101 Q - - - - T F D T M S P A P V I P S N T E M P G P H H P E V T E Q Q S S T A K Hu p73β
 112 Q - - - - T F D A L S P S P A I P S N T E M P G P H S E D V S F Q Q S S T A K Hu p63γ
 151 Q - - - - T F D A L S P S P A I P S N T E M P G P H S E D V S F Q Q S S T A K Mu p63γ

121 S Y T C T Y S P A I N K M F C O L A K T C P V O L W V D S T F P P G T E V R A M Hu p53
 139 S E T T Y S E L L K K L Y C O I A K T C P I Q I K V S T P P P G T A I R A M Hu p73β
 150 S A T T Y S T E L K K L Y C O I A K A C H I Q I K V M T P P P G G A V I R A M Hu p63γ
 189 S A T T Y S T E L K K L Y C O I A K A C H I Q I K V M T P P P G G A V I R A M Mu p63γ

161 A L K O S C H N T E V V R R C P A H E - - R C S D S D G L A P E O H I R V E Hu p53
 179 P V Y K R A E H V T D V V R R C P N H E L G R D F N E G Q S A P A S S I I R V E Hu p73β
 190 P V Y K R A E H V T E V V R R C P N H E L S R E F N E G Q I A P S S I I R V E Hu p63γ
 229 P V Y K R A E H V T E V V R R C P N H E L S R E F N E G Q I A P S S I I R V E Mu p63γ

199 G N I R V E V L D D R N T P R H S V V V E Y E P P E V G S D C T T I H Y N M C Hu p53
 219 G N N L S Q V D P F V T G R C S V V V P E P P Q V G T E E T T V L Y N E M C Hu p73β
 230 G N S H A Q V E D P I T G R C S V L V P V E P P Q V G T E E T T V L Y N E M C Hu p63γ
 269 G N S H A Q V E D P I T G R C S V L V P V E P P Q V G T E E T T V L Y N E M C Mu p63γ

239 N G S C M G M N R R P I L I T T I L E D S S G N I L G R N S F E V H V C A C P Hu p53
 259 N G S C V G C M N R K P I L I T T I L E M R D S Q V I G R F S F E G R I C A C P Hu p73β
 270 N G S C V G C M N R R P I L I T T I L E T R D G Q V I G R R C F E A R I C A C P Hu p63γ
 309 N G S C V G C M N R R P I L I T T I L E T R E G Q V I G R R C F E A R I C A C P Mu p63γ

279 G R D R R T E E E N L R K K G P P H H E L P P G S T - - - - - K R A A P E N Hu p53
 299 G R D R R A E D E D H Y R E Q Q A L N - E - - - - S A - K N G A A S K R A F K Q Hu p73β
 310 G R D R R A E D E S I R K Q Q V S - - D - - - - S T - K N G D G T K R P P R Q Hu p63γ
 349 G R D R R A E D E S I R K Q Q V S - - D - - - - S A - K N G D A - - - - F R Q Mu p63γ

311 N - - - - - T S S S P Q K K K R L D G E Y F L L O I R G R E R F E N E R E L Hu p53
 333 - S P P A V P A L G A G V K K R R H G D E D T Y E L Q V E G R E N F E I L M R I Hu p73β
 342 N T H G I Q M T S - - - I K K R R S E D D E L L Y L P V R G R E T Y E M L L K I Hu p63γ
 377 N T H G I Q M T S - - - I K K R R S E D D E L L Y L P V R G R E T Y E M L L K I Mu p63γ

345 N E A L F L K D A D A C K L P G G S - - - - - A H S S H L K S - - Hu p53
 372 R E S I T M E L V P Q R L V D S E R Q Q Q Q - - - - - L L Q R P S H T O P P S Hu p73β
 379 R E S I T L M Q Y L P O H T I E T Y Q Q Q Q Q Q H Q H L L Q K - - - L L A C Hu p63γ
 414 R E S I T L M Q Y L P O H T I E T Y Q Q Q Q Q Q H Q H L L Q K - - - L L A C Mu p63γ

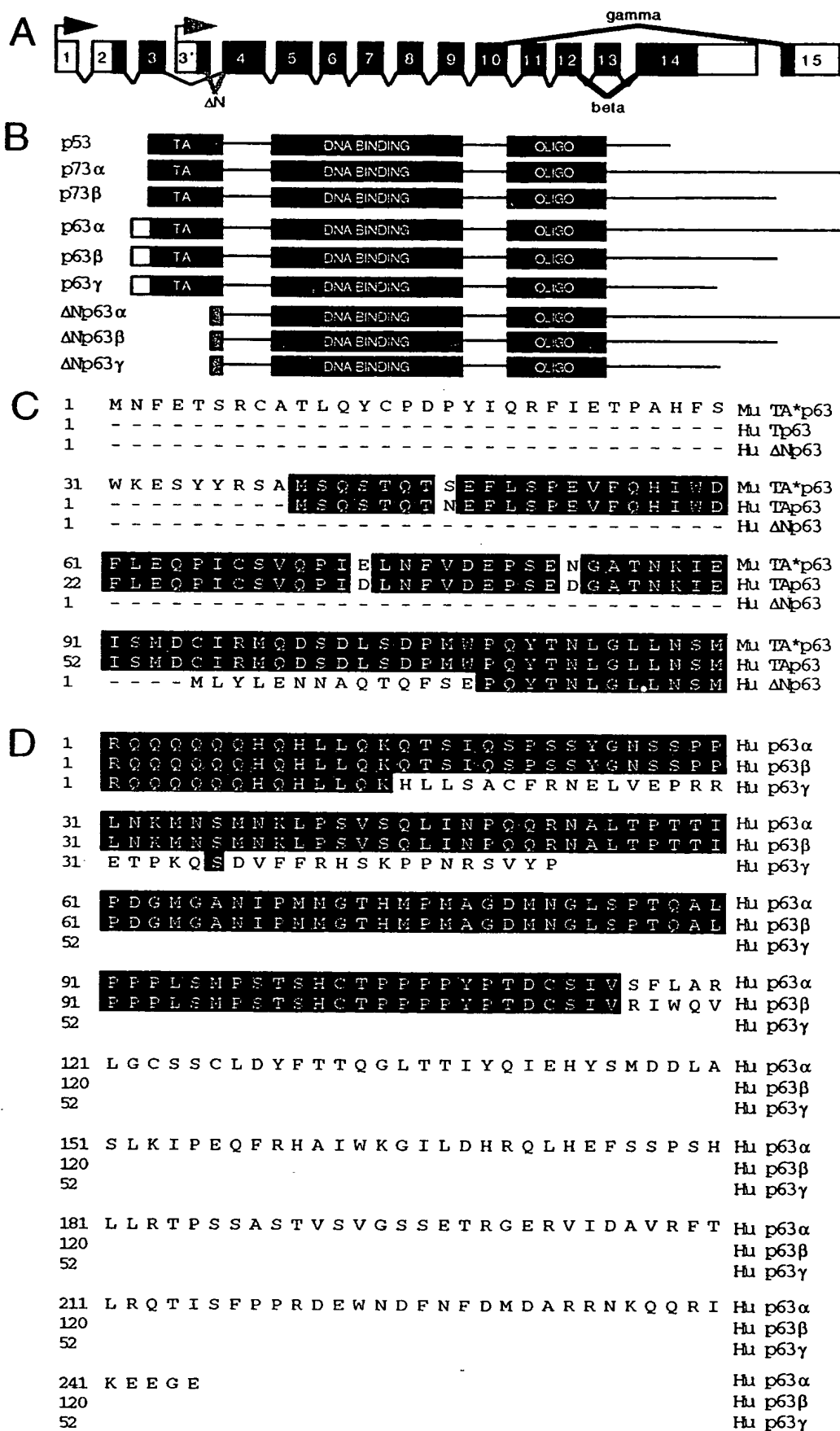
372 - - - - - K I G G S T S R H K K V M E K T E G P D S D Hu p53
 407 Y G P V L S P M N V H G G - - M N K L P S V N O L V G O P P P H S S A A T P N Hu p73β
 417 F R N E L V E P R R E T P K Q S D - - - V E F R H S K L P N R E V Y P Hu p63γ
 452 F R N E L V E P R G E A P T O S D - - - V E F R H S N V E N H S V Y E Z Mu p63γ

393 - - - - - Hu p53
 445 L G P V G P G M L N N H G H A V P A N G E M S S S H S A Q S M V S G S H C T P P Hu p73β
 448 - - - - - Hu p63γ
 484 - - - - - Mu p63γ

393 - - - - - Hu p53
 485 P P Y H A D P S L V R T W G P Hu p73β
 448 - - - - - Hu p63γ
 484 - - - - - Mu p63γ

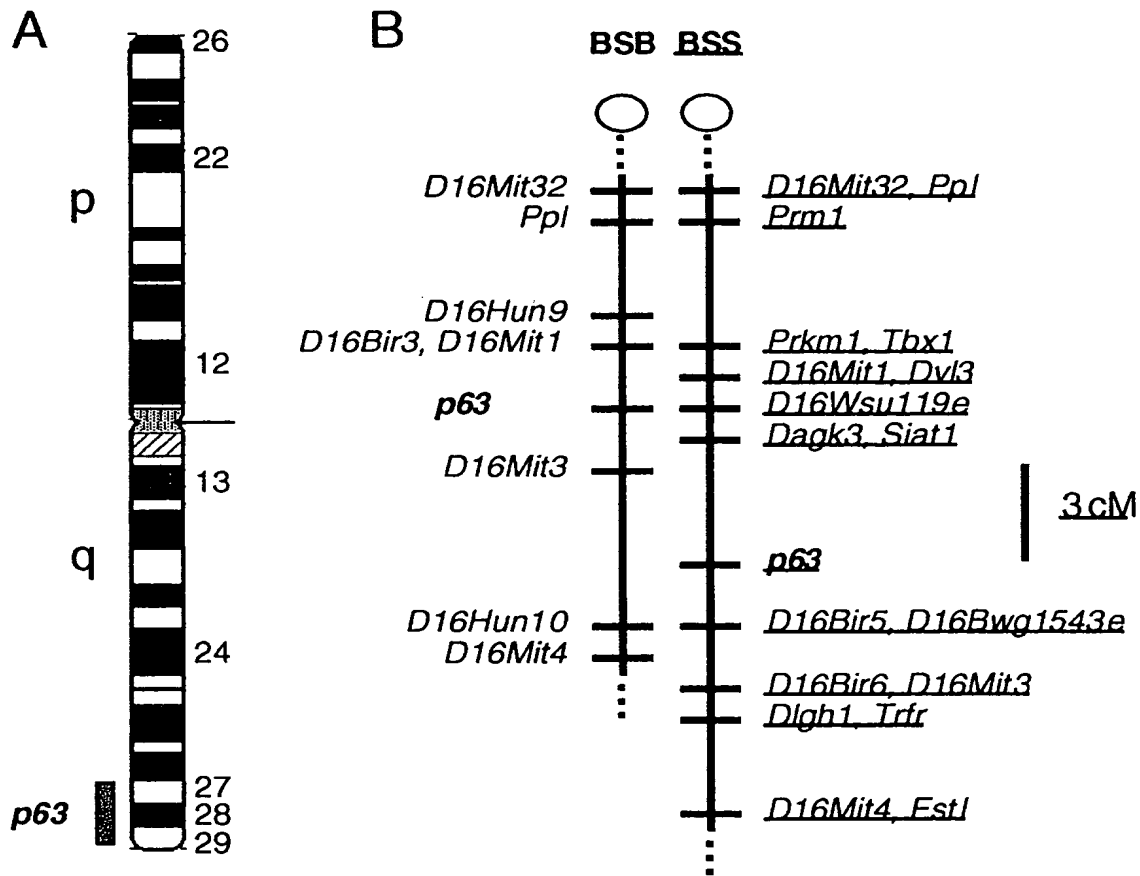
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Figure 1



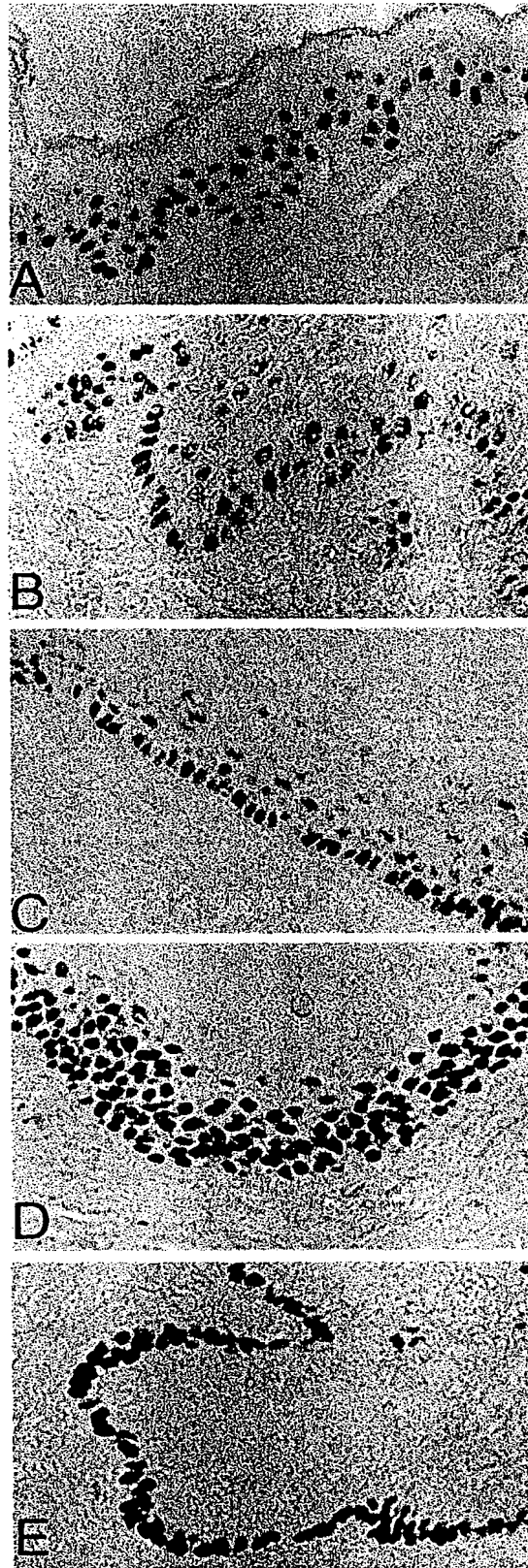
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Figure 2



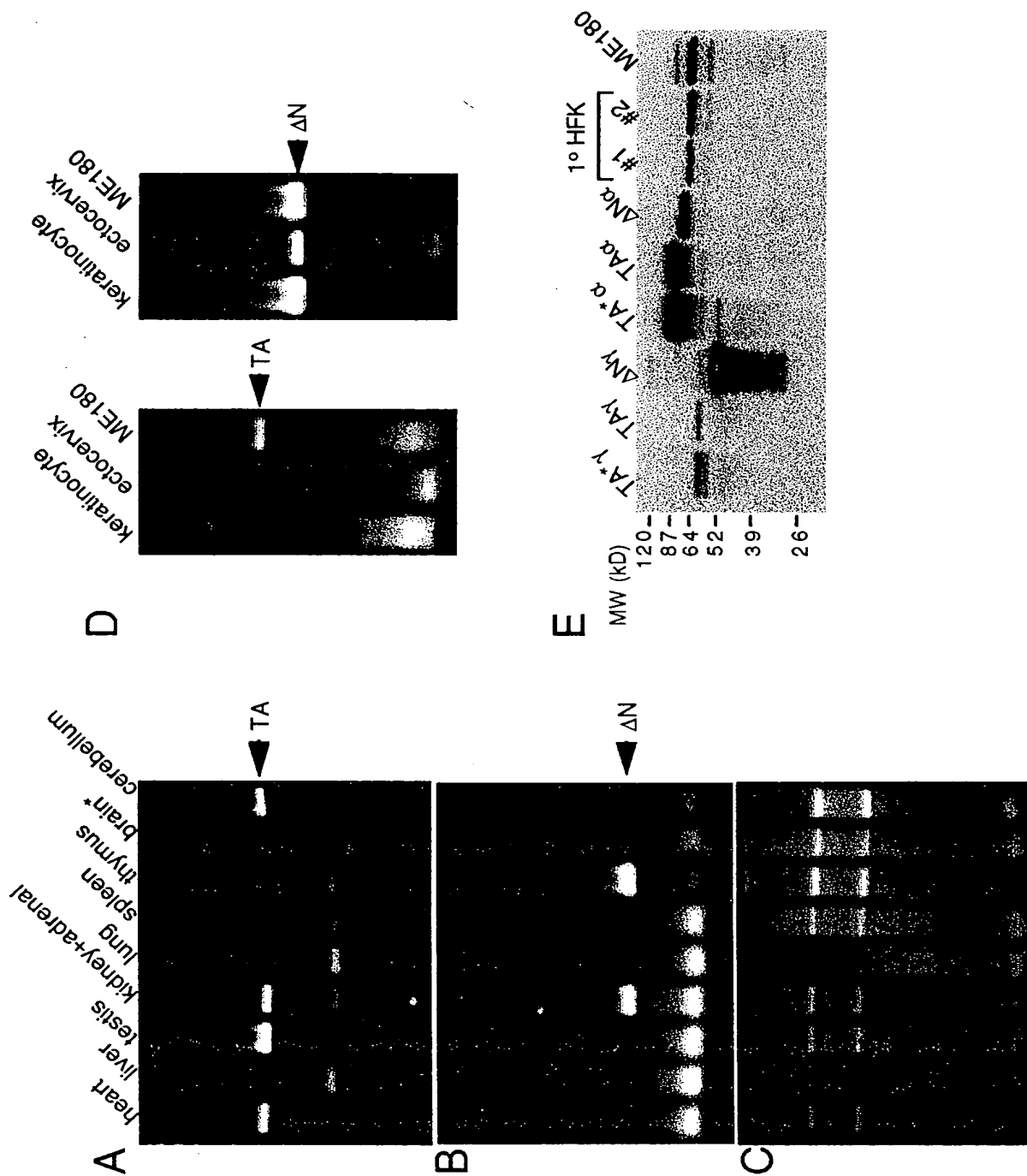
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Figure 3



BEST AVAILABLE COPY

Figure 4



BEST AVAILABLE COPY

Figure 5

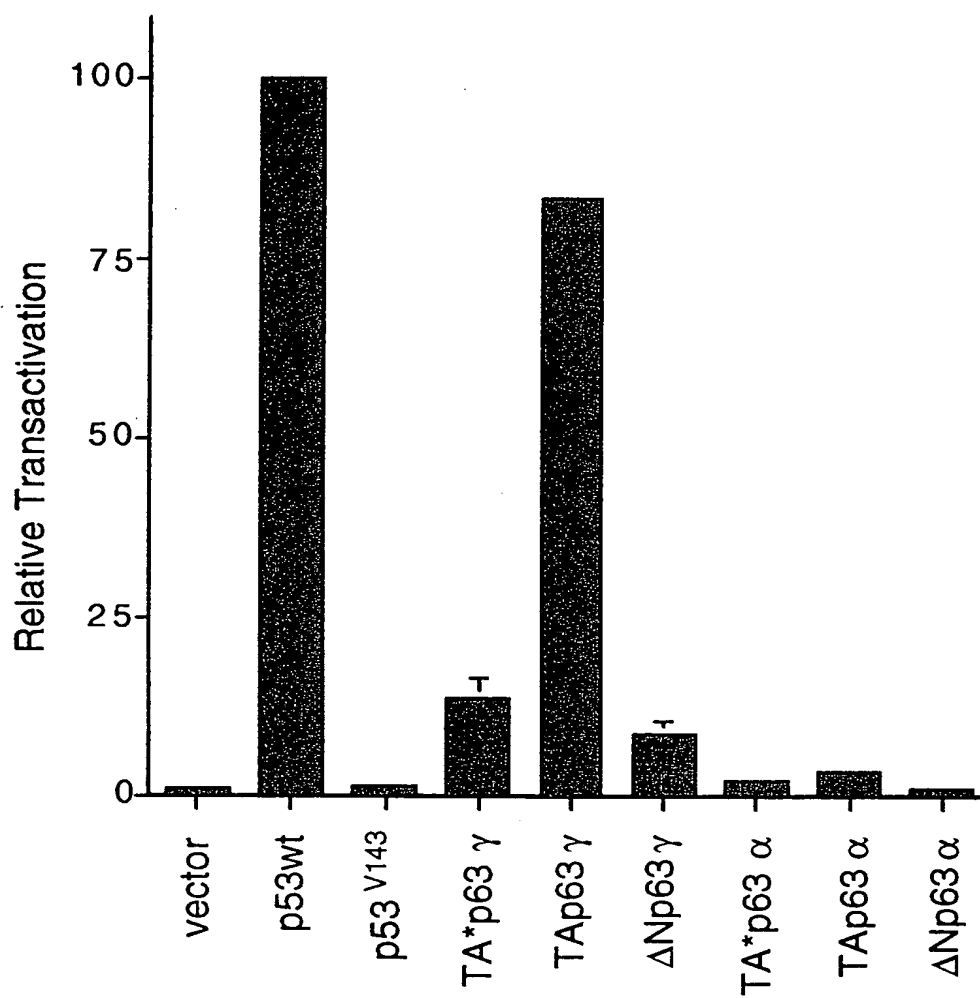
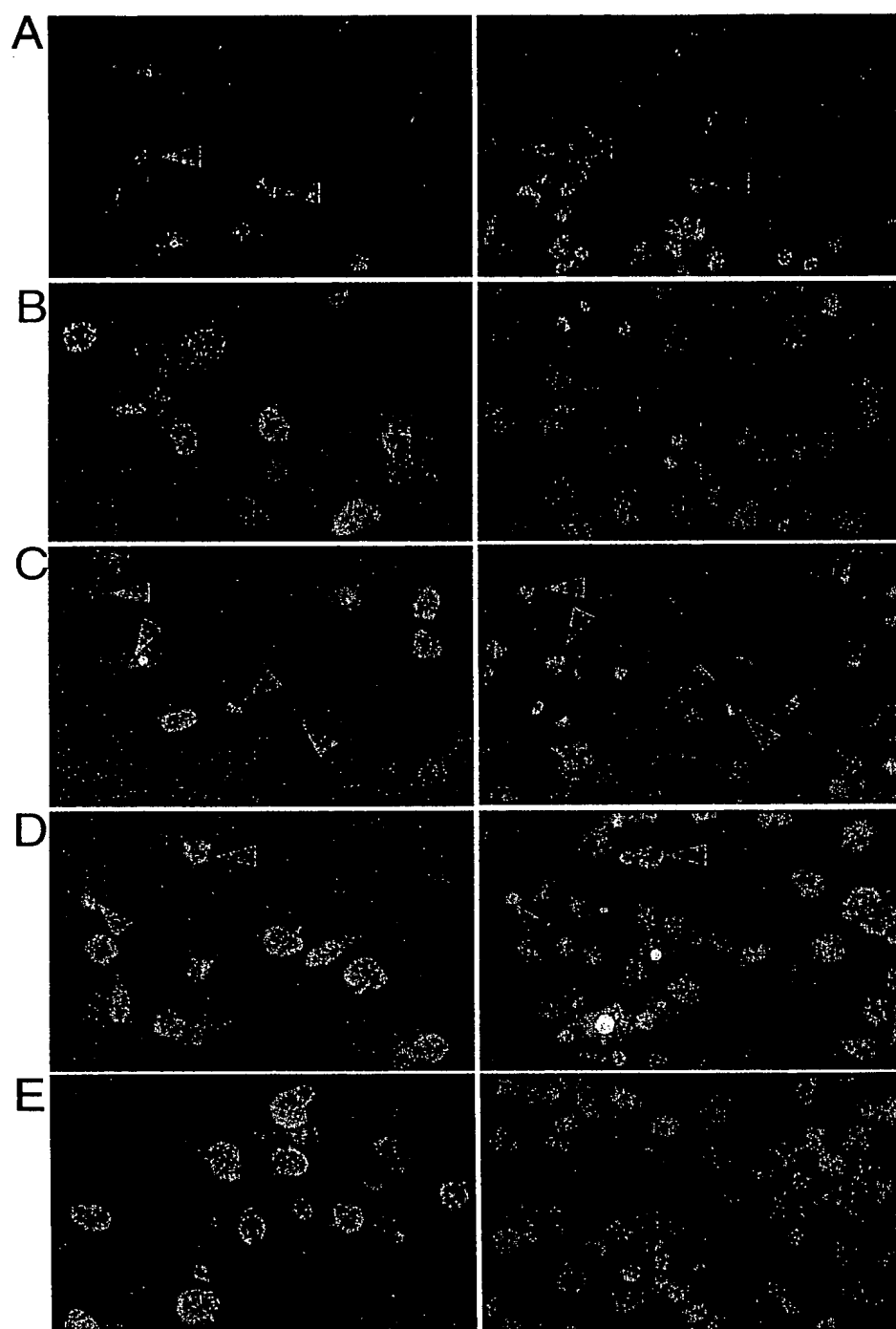


Figure 6



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Figure 7

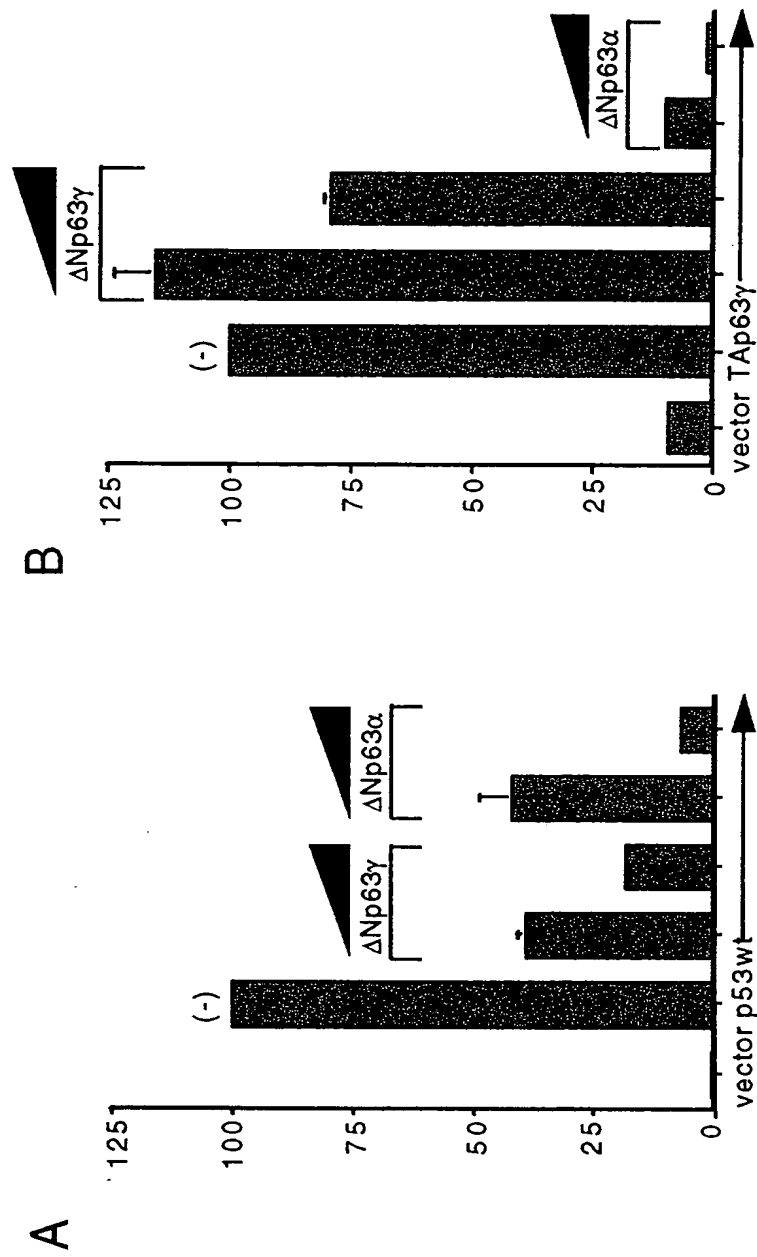


Figure 8

BEST AVAILABLE COPY


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1/1
ATG TCC CAG AGC ACA CAG ACA AAT GAA TTC CTC AGT CCA GAG GTT TTC CAG CAT ATC TGG
M S Q S T Q T N E F L S P E V F Q H I W
61/21
GAT TTT CTG GAA CAG CCT ATA TGT TCA GTT CAG CCC ATT GAC TTG AAC TTT GTG GAT GAA
D F L E Q P I C S V Q P I D L N F V D E
121/41
CCA TCA GAA GAT GGT GCG ACA AAC AAG ATT GAG ATT AGC ATG GAC TGT ATC CGC ATG CAG
P S E D G A T N K I E I S M D C I R M Q
131/61
GAC TCG GAC CTG AGT GAC CCC ATG TGG CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC
D S D L S D P M W P Q Y T N L G L L N S
241/81
ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT AAC ACA GAC CAC GCG
M D Q Q I Q N G S S S T S P Y N T D H A
301/101
CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC ACC TTC GAT GCT CTC
Q N S V T A P S P Y A Q P S S T F D A L
361/121
TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG CAC AGT TTC GAC GTG
S P S P A I P S N T D Y P G P H S F D V
421/141
TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT TCC ACT GAA CTG AAG
S F Q Q S S T A K S A T W T Y S T E L K
481/161
AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCT
K L Y C Q I A K T C P I Q I K V M T P P
541/181
CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT GAG CAC GTC ACG GAG
P Q G A V I R A M P V Y K K A E H V T E
601/201
GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC GAG GGA CAG ATT GCC
V V K R C P N H E L S R E F N E G Q I A
661/221
CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCC
P P S H L I R V E G N S H A Q Y V E D P
721/241
ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG GTT GGC ACT GAA TTC
I T G R Q S V L V P Y E P P Q V G T E F
781/261
ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA GGG ATG AAC CGC Cgt
T T V L Y N F M C N S S C V G G M N R R
841/281
CCA ATT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGC TGC
P I L I I V T L E T R D G Q V L G R R C
901/301
TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG GAT GAA GAT AGC ATC
F E A R I C A C P G R D R K A D E D S I
961/321
AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG AAG CGC CCG TTT CGT
R K Q Q V S D S T K N G D G T K R P F R
1021/341
CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA TCC CCA GAT GAT GAA
Q N T H G I Q M T S I K K R R S P D D E
1081/361
CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG TTG AAG ATC AAA GAG
L L Y L P V R G R E T Y E M L L K I K E
1141/381
TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG TAC AGG CAA CAG CAA
S L E L M Q Y L P Q H T I E T Y R Q Q Q
31/11
91/31
151/51
211/71
271/91
331/111
391/131
451/151
511/171
571/191
631/211
691/231
751/251
811/271
871/291
931/311
991/331
1051/351
1111/371
1171/391

```

Figure 9

1201/401
 CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAG ACC TCA ATA CAG TCT CCA TCT TCA TAT
 Q Q Q H Q H L L Q K Q T S I Q S P S S Y
 1261/421
 GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG CTG CCT TCT GTG AGC
 G N S S P P L N K M N S M N K L P S V S
 1321/441
 CAG CTT ATC AAC CCT CAG CAG CGC AAC GCC CTC ACT CCT ACA ACC ATT CCT GAT GGC ATG
 Q L I N P Q Q R N A L T P T T I P D G M
 1381/461
 CGA GCC AAC ATT CCC ATG ATG GGC ACC CAC ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC
 G A N I P M M G T H M P M A G D M N G L
 1441/481
 AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC TCC ATG CCA TCC ACC TCC CAC TGC ACA CCC
 S P T Q A L P P P L S M P S T S H C T P
 1501/501
 CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT GTC AGT TTC TTA GCG AGG TTG GGC TGT TCA
 P P P Y P T D C S I V S F L A R L G C S
 1561/521
 TCA TGT CTG GAC TAT TTC ACG ACC CAG GGG CTG ACC ACC ATC TAT CAG ATT GAG CAT TAC
 S C L D Y F T T Q G L T T I Y Q I E H Y
 1621/541
 TCC ATG GAT GAT CTG GCA AGT CTG AAA ATC CCT GAG CAA TTT CGA CAT GCG ATC TGG AAG
 S M D D L A S L K I P E Q F R H A I W K
 1681/561
 GGC ATC CTG GAC CAC CGG CAG CTC CAC GAA TTC TCC TCC CCT TCT CAT CTC CTG CGG ACC
 G I L D H R Q L H E F S S P S H L L R T
 1741/581
 CCA AGC AGT GCC TCT ACA GTC AGT GTG GGC TCC AGT GAG ACC CGG GGT GAG CGT GTT ATT
 P S S A S T V S V G S S E T R G E R V I
 1801/601
 GAT GCT GTG CGA TTC ACC CTC CGC CAG ACC ATC TCT TTC CCA CCC CGA GAT GAG TGG AAT
 D A V R F T L R Q T I S F P P R D E W N
 1861/621
 GAC TTC AAC TTT GAC ATG GAT GCT CGC CGC AAT AAG CAA CAG CGC ATC AAA GAG GAG GGG
 D F N F D M D A R R N K Q Q R I K E E G
 1921/641
 GAG TGA
 E *

Figure 9 cont'd

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1/1
ATG TCC CAG AGC ACA CAG ACA AAT GAA TTC CTC AGT CCA GAG GTT TTC CAG CAT ATC TGG
M S Q S T Q T N E F L S P E V F Q H I W
61/21
GAT TTT CTG GAA CAG CcT ATA TGT TCA GTT CAG CCC ATT GAC TTG AAC TTT GTG GAT GAA
D F L E Q P I C S V Q P I D L N F V D E
121/41
CCA TCA GAA GAT GGT GCG ACA AAC AAG ATT GAG ATT AGC ATG GAC TGT ATC CGC ATG CAG
P S E D G A T N K I E I S M D C I R M Q
181/61
GAC TCG GAC CTG AGT GAC CCC ATG TGG CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC
D S D L S D P M W P Q Y T N L G L L N S
241/81
ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT AAC ACA GAC CAC GCG
M D Q Q I Q N G S S S T S P Y N T D H A
301/101
CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC ACC TTC GAT GCT CTC
Q N S V T A P S P Y A Q P S S T F D A L
361/121
TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG CAC AGT TTC GAC GTG
S P S P A I P S N T D Y P G P H S F D V
421/141
TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT TCC ACT GAA CTG AAG
S F Q Q S S T A K S A T W T Y S T E L K
481/161
AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCT
K L Y C Q I A K T C P I Q I K V M T P P
541/181
CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT GAG CAC GTC ACG GAG
P Q G A V I R A M P V Y K K A E H V T E
601/201
GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC GAG GGA CAG ATT GCC
V V K R C P N H E L S R E F N E G Q I A
661/221
CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCC
P P S H L I R V E G N S H A Q Y V E D P
721/241
ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG GTT GGC ACT GAA TTC
I T G R Q S V L V P Y E P P Q V G T E F
781/261
ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA GGG ATG AAC cgc Cgt
T T V L Y N F M C N S S C V G G M N R R
841/281
CCa aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGC TGC
P I L I I V T L E T R D G Q V L G R R C
901/301
TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG GAT GAA GAT AGC ATC
F E A R I C A C P G R D R K A D E D S I
961/321
AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG AAG CGC CCG TTT CGT
R K Q Q V S D S T K N G D G T K R P F R
1021/341
CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA TCC CCA GAT GAT GAA
Q N T H G I Q M T S I K K R R S P D D E
1081/361
CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG TTG AAG ATC AAA GAG
L L Y L P V R G R E T Y E M L L K I K E
1141/381
TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG TAC AGG CAA CAG CAA
S L E L M Q Y L P Q H T I E T Y R Q Q Q

```

Figure 10

1201/401	1231/411
CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA	CAG ACC TCA ATA CAG TCT CCA TCT TCA TAT
Q Q Q H Q H L L Q K	Q T S I Q S P S S Y
1261/421	1291/431
GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG	AAC AGC ATG AAC AAG CTG CCT TCT GTG AGC
G N S S P P L N K M	N S M N K L P S V S
1321/441	1351/451
CAG CTT ATC AAC CCT CAG CAG CGC AAC GCC	CTC ACT CCT ACA ACC ATT CCT GAT GGC ATG
Q L I N P Q Q R N A	L T P T T I P D G M
1381/461	1411/471
GGA GCC AAC ATT CCC ATG ATG GGC ACC CAC	ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC
G A N I P M M G T H	M P M A G D M N G L
1441/481	1471/491
AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC	TCC ATG CCA TCC ACC TCC CAC TGC ACA CCC
S P T Q A L P P P L	S M P S T S H C T P
1501/501	1531/511
CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT	GTC AGG ATC TGG CAA GTC TGA
P P P Y P T D C S I V R I W Q V *	

Figure 10 cont'd

1/1
 ATG TCC CAG AGC ACA CAG ACA AAT GAA TTC CTC AGT CCA GAG GTT TTC CAG CAT ATC TGG
 M S Q S T Q T N E F L S P E V F Q H I W
 61/21
 GAT TTT CTG GAA CAG CcT ATA TGT TCA GTT CAG CCC ATT GAC TTG AAC TTT GTG GAT GAA
 D F L E Q P I C S V Q P I D L N F V D E
 121/41
 CCA TCA GAA GAT GGT GCG ACA AAC AAG ATT GAG ATT AGC ATG GAC TGT ATC CGC ATG CAG
 P S E D G A T N K I E I S M D C I R M Q
 181/61
 GAC TCG GAC CTG AGT GAC CCC ATG TGG CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC
 D S D L S D P M W P Q Y T N L G L L N S
 241/81
 ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT AAC ACA GAC CAC GCG
 M D Q Q I Q N G S S S T S P Y N T D H A
 301/101
 CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC ACC TTC GAT GCT CTC
 Q N S V T A P S P Y A Q P S S T F D A L
 361/121
 TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG CAC AGT TTC GAC GTG
 S P S P A I P S N T D Y P G P H S F D V
 421/141
 TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT TCC ACT GAA CTG AAG
 S F Q Q S S T A K S A T W T Y S T E L K
 481/161
 AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCT
 K L Y C Q I A K T C P I Q I K V M T P P
 541/181
 CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT GAG CAC GTC ACG GAG
 P Q G A V I R A M P V Y K K A E H V T E
 601/201
 GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC GAG GGA CAG ATT GCC
 V V K R C P N H E L S R E F N E G Q I A
 661/221
 CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCC
 P P S H L I R V E G N S H A Q Y V E D P
 721/241
 ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG GTT GGC ACT GAA TTC
 I T G R Q S V L V P Y E P P Q V G T E F
 781/261
 ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA GGG ATG AAC cgc Cgt
 T T V L Y N F M C N S S C V G G M N R R
 841/281
 CCA aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGC TGC
 P I L I I V T L E T R D G Q V L G R R C
 901/301
 TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG GAT GAA GAT AGC ATC
 F E A R I C A C P G R D R K A D E D S I
 961/321
 AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG AAG CGC CCG TTT CGT
 R K Q Q V S D S T K N G D G T K R P F R
 1021/341
 CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA TCC CCA GAT GAT GAA
 Q N T H G I Q M T S I K K R R S P D D E
 1081/361
 CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG TTG AAG ATC AAA GAG
 L L Y L P V R G R E T Y E M L L K I K E
 1141/381
 TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG TAC AGG CAA CAG CAA
 S L E L M Q Y L P Q H T I E T Y R Q Q Q

Figure 11

1201/401

CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAT CTC CTT TCA GCC TGC TTC AGG AAT GAG
 Q Q Q H Q H L L Q K H L L S A C F R N E

1231/411

1261/421

CTT GTG GAG CCC CGG AGA GAA ACT CCA AAA CAA TCT GAC GTC TTC TTT AGA CAT TCC AAG
 L V E P R R E T P K Q S D V F F R H S K

1291/431

1321/441

CCC CCA AAC CGA TCA GTG TAC CCA TAG
 P P N R S V Y P *

Figure 11 cont'd

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1201/401
ATT CCT GAT GGC ATG GGA GCC AAC ATT CCC
I P D G M G A N I P M M G T H M P M A G
1261/421
GAC ATG AAT GGA CTC AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC TCC ATG CCA TCC ACC
D M N G L S P T Q A L P P P L S M P S T
1321/441
TCC CAC TGC ACA CCC CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT GTC AGT TTC TTA GCG
S H C T P P P P Y P T D C S I V S F L A
1381/461
AGG TTG GGC TGT TCA TCA TGT CTG GAC TAT TTC ACG ACC CAG GGG CTG ACC ACC ATC TAT
R L G C S S C L D Y F T T Q G L T T I Y
1441/481
CAG ATT GAG CAT TAC TCC ATG GAT GAT CTG GCA AGT CTG AAA ATC CCT GAG CAA TTT CGA
Q I B H Y S M D D L A S L K I P E Q F R
1501/501
CAT GCG ATC TGG AAG GGC ATC CTG GAC CAC CGG CAG CTC CAC GAA TTC TCC TCC CCT TCT
H A I W K G I L D H R Q L H E F S S P S
1561/521
CAT CTC CTG CGG ACC CCA AGC AGT GCC TCT ACA GTC AGT GTG GGC TCC AGT GAG ACC CGG
H L L R T P S S A S T V S V G S S E T R
1621/541
GGT GAG CGT GTT ATT GAT GCT GTG CGA TTC ACC CTC GGC CAG ACC ATC TCT TTC CCA CCC
G E R V I D A V R F T L R Q T I S F P P
1681/561
CGA GAT GAG TGG AAT GAC TTC AAC TTT GAC ATG GAT GCT CGC CGC AAT AAG CAA CAG CGC
R D E W N D F N F D M D A R R N K Q Q R
1741/581
ATC AAA GAG GAG GGG GAG TGA
I K E E G E *
1231/411
ATG ATG GGC ACC CAC ATG CCA ATG GCT GGA
M M G T H M P M A G
1291/431
L P P P L S M P S T
1351/451
ACA GAT TGC AGC ATT GTC AGT TTC TTA GCG
T D C S I V S F L A
1411/471
TTC ACG ACC CAG GGG CTG ACC ACC ATC TAT
F T T Q G L T T I Y
1471/491
GCA AGT CTG AAA ATC CCT GAG CAA TTT CGA
A S L K I P E Q F R
1531/511
CGG CAG CTC CAC GAA TTC TCC TCC CCT TCT
R Q L H E F S S P S
1591/531
ACA GTC AGT GTG GGC TCC AGT GAG ACC CGG
T V S V G S S E T R
1651/551
ACC CTC GGC CAG ACC ATC TCT TTC CCA CCC
T L R Q T I S F P P
1711/571
ATG GAT GCT CGC CGC AAT AAG CAA CAG CGC
M D A R R N K Q Q R

```

Figure 12

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCG CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTC GAT GCT CTC TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGT TTC GAC GTG TCC TTC CAG CAG TOG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACT GAA CTG AAG AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCT CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAC GTC ACG GAG GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCC ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGG ATG AAC cgc Cgt Cca aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGC TGC TTT GAG GCC OGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCC
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAT AGC ATC AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG
 D E D S I R K Q Q V S D S T K N G D G T
 841/281
 AAG GGC CCG TTT CGT CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAA CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 TTG AAG ATC AAA GAG TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAA CAG CAA CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAG ACC TCA ATA CAG
 Y R Q Q Q Q Q H Q H L L Q K Q T S I Q
 1081/361
 TCT CCA TCT TCA TAT GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S P S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG OCT TCT GTG AGC CAG CTT ATC AAC CCT CAG CAG GGC AAC GCC CTC ACT CCT ACA ACC
 L P S V S Q L I N P Q Q R N A L T P T T

Figure 13

1201/401	1231/411
ATT OCT GAT GGC ATG GGA GCC AAC ATT CCC	ATG ATG GGC ACC CAC ATG CCA ATG GCT GGA
I P D G M G A N I P	M M G T H M P M A G
1261/421	1291/431
GAC ATG AAT GGA CTC AGC CCC ACC CAG GCA	CTC CCT CCC CCA CTC TCC ATG CCA TCC ACC
D M N G L S P T Q A	L P P P L S M P S T
1321/441	1351/451
TCC CAC TGC ACA CCC CCA CCT CCG TAT CCC	ACA GAT TGC AGC ATT GTC AGG ATC TGG CAA
S H C T P P P P Y P	T D C S I V R I W Q
1381/461	
GTC TGA	
V "	

Figure 13 cont'd

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCG CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTC GAT GCT CTC TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC ACT TTC GAC GTG TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACT GAA CTG AAG AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCT CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAC GTC ACG GAG GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCC ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGG ATG AAC CGC CGT CCA ATT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGC TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAT AGC ATC AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG
 D E D S I R K Q Q V S D S T K N G D G T
 841/281
 AAG GCG CCG TTT CGT CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAA CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 TTG AAG ATC AAA GAG TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAA CAG CAA CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAT CTC CTT TCA GCC
 Y R Q Q Q Q Q Q H Q H L L Q K H L L S A
 1081/361
 TGC TTC AGG AAT GAG CTT GTG GAG CCC CGG AGA GAA ACT CCA AAA CAA TCT GAC GTC TTC
 C F R N E L V E P R R E T P K Q S D V F
 1141/381
 TTT AGA CAT TCC AAG CCC CCA AAC CGA TCA GTG TAC CCA TAG
 F R H S K P P N R S V Y P *

Figure 14

1/1
 ATG AAT TTT GAA ACT TCA CGG TGT GCC ACC CTA CAG TAC TGC CCC GAC CCT TAC ATC CAG
 M N F E T S R C A T L Q Y C P D P Y I Q
 61/21
 CGT TTC ATA GAA ACC CCA GCT CAT TTC TCG TGG AAA GAA AGT TAT TAC AGA TCT GCC ATG
 R F I E T P A H F S W K E S Y Y R S A M
 121/41
 TCG CAG AGC ACC CAG ACA AGC GAG TTC CTC AGC CCA GAG GTC TTC CAG CAT ATC TGG GAT
 S Q S T Q T S B F L S P E V F Q H I W D
 181/61
 TTT CTG GAA CAG CCT ATA TGC TCA GTA CAG CCC ATC GAG TTG AAC TTT GTG GAT GAA CCT
 F L E Q P I C S V Q P I E L N F V D E P
 241/81
 TCC GAA AAT GGT GCA aCa aaC aaG ATT GAG ATT AGC ATG GAT TGT ATC cGC ATG Caa GAC
 S E N G A T N K I E I S M D C I R M Q D
 301/101
 TCA GAG CTC AGT GAC CCC ATG Tgg CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC ATG
 S D L S D P M W P Q Y T N L G L L N S M
 361/121
 GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC AaC ACA GAC CAC GCA CAG
 D Q Q I Q N G S S S T S P Y N T D H A Q
 421/141
 AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC ACC TTT GAT GCC CTC TCT
 N S V T A P S P Y A Q P S S T F D A L S
 481/161
 CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA CAC AGC TTC GAT GTG TCC
 P S P A I P S N T D Y P G P H S F D V S
 541/181
 TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT TCC ACC GAA CTG AAG AAG
 F Q Q S S T A K S A T W T Y S T E L K K
 601/201
 CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCC CCA
 L Y C Q I A K T C P I Q I K V M T P P P
 661/221
 CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT GAG CAT GTC ACC GAG GTT
 Q G A V I R A M P V Y K K A E H V T E V
 721/241
 GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC COT GAG TTC AAT GAG GGA CAG ATT GCC CCT
 V K R C P N H E L S R E F N E G Q I A P
 781/261
 CCC AGT CAT CTG ATT CGA GTA gAA GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCT ATC
 P S H L I R V E G N S H A Q Y V E D P I
 841/281
 ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CaG GTT GGC ACT GAA TTC ACA
 T G R Q S V L V P Y E P P Q V G T E F T
 901/301
 ACA GTC CTG TAC aAT TTC ATG TGT AAC AGC AGC TGC GTC GGA GGA ATG AAC AGA Cgt CCA
 T V L Y N F M C N S S C V G G M N R R P
 961/321
 ATT TTA ATC ATC GTT ACT CTG GAA ACC ACA GAT GGG CAA gTC CTG GGC CGA CGG TGC TTT
 I L I I V T L E T R D G Q V L G R R C F
 1021/341
 GAG GCC CGG ATC TGT Gct TGC CCA GGA AGA GAC CGG AAG GCA GAT GAA GAC AGC ATC AGA
 E A R I C A C P G R D R K A D E D S I R
 1081/361
 AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG AAG CGC CCT TTC CGT CAG
 K Q Q V S D S A K N G D G T K R P F R Q
 1141/381
 AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA TCC CCA GAT GAT GAG CTG
 N T H G I Q M T S I K K R R S P D D E L

Figure 15

1201/401
 CTG TAC CTA CCA GTG AGA GGT COT GAG ACG
 L Y L P V R G R E T
 1261/421
 CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC
 L E L M Q Y L P Q H
 1321/441
 CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG
 Q Q H Q H L L Q K Q
 1381/461
 AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC
 N S S P P L N K M N
 1441/481
 CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC
 L I N P Q Q R N A L
 1501/501
 GCC AAC ATT CCT ATG ATG GGC ACT CAC ATG
 A N I P M M G T H M
 1561/521
 CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC
 P T Q A L P P P L S
 1621/541
 CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC
 P P Y P T D C S I V
 1661/561
 TGC CTG GAC TAT TTC ACG ACC CAG ggg CTG
 C L D Y F T T Q G L
 1741/581
 ATG GAT GAT TCG GCA aGT CTG AAG ATC cCT
 M D D L A S L K I P
 1801/601
 aTC CTG GAC CAC AGG CAG cTG CAC GAC TTC
 I L D H R Q L H D F
 1861/621
 AGT GGT GCC TCT ACC GTC AGT GTG GGC TCC
 S G A S T V S V G S
 1921/641
 GCC GTG CGC TTT ACC CTC CGC CAG ACC ATC
 A V R F T L R Q T I
 1981/661
 TTC AAC TTT GAC ATG GAT TCT CGT CGC AAC
 F N F D M D S R R N K
 2041/681
 TGA
 1231/411
 TAC GAG ATG TTG CTG AAG ATC AAA GAG TCA
 Y E M L L K I K E S
 1291/431
 ACG ATC GAA ACG TAC AGG CAG CAG CAG CAG
 T I E T Y R Q Q Q Q
 1351/451
 ACC TCG ATG CAG TCT CAG TCT TCA TAT GGC
 T S M Q S Q S S Y G
 1411/471
 AGC ATG AAC AAG CTG CCT TCC GTG AGC CAG
 S M N K L P S V S Q
 1471/491
 ACT CCC ACC ACC ATG CCT GAG GGC ATG GGA
 T P T T M P E G M G
 1531/511
 CCA ATG GCT GGA GAC ATG AAT GGA CTC AGC
 P M A G D M N G L S
 1591/531
 ATG CCC TCC ACC TCC CAC TGC ACC CCA CCA
 M P S T S H C T P P
 1651/551
 AGT TTC TTA GCA Agg Ttg ggc TGC TCA TCA
 S F L A R L G C S S
 1711/571
 Acc ACC ATC TaT CAG ATT GAG CAT TAC TCC
 T T I Y Q I E H Y S
 1771/591
 GAA CAG TTC CGA CAT GCC ATC TGG AAg GGC
 E Q F R H A I W K G
 1831/611
 TCC TCA CCT CCT CaT CTC CTG AGG ACC CCA
 S S P P H L L R T P
 1891/631
 AGT GAG ACC CGT GGT GAA CGT GTG ATC GAT
 S E T R G E R V I D
 1951/651
 TCT TTT CCA CCC CGT GAC GAG TGG AAT GAT
 S F P P R D E W N D
 2011/671
 AAG CAG CAG CGT aTC AAA GAG GAA GGA GAA
 Q Q R I K E E G E

Figure 15 cont'd

1/1
 ATG AAT TTT GAA ACT TCA CGG TGT GCC ACC CTA CAG TAC TGC CCC GAC CCT TAC ATC CAG
 M N F E T S R C A T L Q Y C P D P Y I Q
 61/21
 CGT TTC ATA GAA ACC CCA GCT CAT TTC TCG TGG AAA GAA AGT TAT TAC AGA TCT GCC ATG
 R F I E T P A H F S W K E S Y Y R S A M
 121/41
 TCG CAG AGC ACC CAG ACA AGC GAG TTC CTC AGC CCA GAG GTC TTC CAG CAT ATC TGG GAT
 S Q S T Q T S E F L S P E V F Q H I W D
 181/61
 TTT CTG GAA CAG CCT ATA TGC TCA GTA CAG CCC ATC GAG TTG AAC TTT GTG GAT GAA CCT
 F L E Q P I C S V Q P I E L N F V D E P
 241/81
 TCC GAA AAT GGT GCA aCa aaC aaG ATT GAG ATT AGC ATG GAT TGT ATC cGC ATG Caa GAC
 S E N G A T N K I E I S M D C I R M Q D
 301/101
 TCA GAC CTC AGT GAC CCC ATG Tgg CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC ATG
 S D L S D P M W P Q Y T N L G L L N S M
 361/121
 GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC AAC ACA GAC CAC GCA CAG
 D Q Q I Q N G S S S T S P Y N T D H A Q
 421/141
 AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC ACC TTT GAT GCC CTC TCT
 N S V T A P S P Y A Q P S S T F D A L S
 481/161
 CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA CAC AGC TTC GAT GTG TCC
 P S P A I P S N T D Y P G P H S F D V S
 541/181
 TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT TCC ACC GAA CTG AAG AAG
 F Q Q S S T A K S A T W T Y S T E L K K
 601/201
 CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCC CCA
 L Y C Q I A K T C P I Q I K V M T P P P
 661/221
 CAG GGC GCT GTe ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT GAG CAT GTC ACC GAG GTT
 Q G A V I R A M P V Y K K A E H V T E V
 721/241
 GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT GAG GGA CAG ATC GCC CCT
 V K R C P N H E L S R E F N E G Q I A P
 781/261
 CCC AGT CAT CTG ATT CGA GTA gAA GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCT ATC
 P S H L I R V E G N S H A Q Y V E D P I
 841/281
 ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CaG GTT GGC ACT GAA TTC ACA
 T G R Q S V L V P Y E P P Q V G T E F T
 901/301
 ACA GTC CTG TAC aAT TTC ATG TGT AAC AGC AGC TGC GTC GGA GGA ATG AAC AGA CgT CCA
 T V L Y N F M C N S S C V G G M N R R P
 961/321
 ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA gTC CTG GGC CGA CCG TGC TTT
 I L I I V T L E T R D G Q V L G R R C F
 1021/341
 GAG GCC CGG ATC TGT Gct TGC CCA GGA AGA GAC CGG AAG GCA GAT GAA GAC AGC ATC AGA
 E A R I C A C P G R D R K A D E D S I R
 1081/361
 AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG AAG CGC CCT TTC CgT CAG
 K Q Q V S D S A K N G D G T K R P F R Q
 1141/381
 AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA TCC CCA GAT GAT GAG CTG
 N T H G I Q M T S I K K R R S P D D E L

Figure 16

1201/401
 CTG TAC CTA CCA GTG AGA GGT COT GAG ACG TAC GAG ATG TTG CTG AAG ATC AAA GAG TCA
 L Y L P V R G R E T Y E M L L K I K E S
 1261/421
 CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG TAC AGG CAG CAG CAG CAG
 L E L M Q Y L P Q H T I E T Y R Q Q Q Q
 1321/441
 CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG TCT CAG TCT TCA TAT GGC
 Q Q H Q H L L Q K Q T S M Q S Q S S Y G
 1381/461
 AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG CTG CCT TCC GTG AGC CAG
 N S S P P L N K M N S M N K L P S V S Q
 1441/481
 CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC ATG CCT GAG GGC ATG GGA
 L I N P Q Q R N A L T P T T M P E G M G
 1501/501
 GCC AAC ATT CCT ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC AGC
 A N I P M M G T H M P M A G D M N G L S
 1561/521
 CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC TCC CAC TGC ACC CCA CCA
 P T Q A L P P P L S M P S T S H C T P P
 1621/541
 CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC AGG ATT TGG Caa GTC TGA
 P P Y P T D C S I V R I W Q V *

Figure 16 cont'd

1/1
 ATG AAT TTT GAA ACT TCA CGG TGT GCC ACC
 M N F E T S R C A T
 61/21
 CGT TTC ATA GAA ACC CCA GCT CAT TTC TCG
 R F I E T P A H F S
 121/41
 TCG CAG AGC ACC CAG ACA AGC GAG TTC CTC
 S Q S T Q T S E F L
 181/61
 TTT CTG GAA CAG CCT ATA TGC TCA GTA CAG
 F L E Q P I C S V Q
 241/81
 TCC GAA AAT GGT GCA aCA aaC aaG ATT GAG
 S E N G A T N K I E
 301/101
 TCA GAc CTC AGT GAC ccc ATG Tgg CCA CAG
 S D L S D P M W P Q
 361/121
 GAC cAG CAG ATT CAG AAC Ggc Tcc Tcg TCC
 D Q Q I Q N G S S S
 421/141
 AAT AGC GTG ACG GCG CCc TCG CCc TAT GCA
 N S V T A P S P Y A
 481/161
 CCA Tcc cct GCC ATT CCc TCC aAC ACA GAT
 P S P A I P S N T D
 541/181
 TTC CAG CAG TCA AGC Act GCC AAG TCA GCC
 F Q Q S S T A K S A
 601/201
 CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC
 L Y C Q I A K T C P
 661/221
 CAG GGC CCT GTT ATC CGT GCC ATG CCT GTC
 Q G A V I R A M P V
 721/241
 GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC
 V K R C P N H E L S
 781/261
 CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC
 P S H L I R V E G N
 841/281
 ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT
 T G R Q S V L V P Y
 901/301
 ACA GTC CTG TAC AAT TTC ATG TGT AAC AGC
 T V L Y N F M C N S
 961/321
 ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA
 I L I I V T L E T R
 1021/341
 GAG GCC CCG ATC TGT GCT TGC CCA GGA AGA
 E A R I C A C P G R
 1081/361
 AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC
 K Q Q V S D S A K N
 1141/381
 ATC CAG ATG ACT TCC ATC AAG AAA CCG AGA
 I Q M T S I K K R R
 31/11
 CTA CAG TAC TGC CCC GAC CCT TAC ATC CAG
 L Q Y C P D P Y I Q
 91/31
 TGG AAA GAA AGT TAT TAC AGA TCT GCC ATG
 W K E S Y Y R S A M
 151/51
 AGC CCA GAG GTC TTC CAG CAT ATC TGG GAT
 S P E V F Q H I W D
 211/71
 ccc ATC GAG TTG AAC TTT GTG GAT GAA CCT
 P I E L N F V D E P
 271/91
 ATT AGC ATG GAT TGT ATc cGC ATG Caa GAc
 I S M D C I R M Q D
 331/111
 TAC ACG aAC cTg ggg CTC CTG aAC AGC ATg
 Y T N L G L L N S M
 391/131
 ACC AGC CCc TAc aac ACA GAC CAC GCA CAG
 T S P Y N T D H A Q
 451/151
 CAG CCC AGC TCC ACc TTt GAT GCC cTC TCT
 Q P S S T F D A L S
 511/171
 TAC CCG GGC CCA CAC AGc TTC GAT GTG TCC
 Y P G P H S F D V S
 571/191
 Acc TGG ACG TAT TCC AOC GAA CTG AAG AAG
 T W T Y S T E L K K
 631/211
 ATC CAG ATC AAG GTG ATG ACC CCA CCC CCA
 I Q I K V M T P P P
 691/231
 TAC AAG AAA GCT GAG CAT GTC ACC GAG GTT
 Y K K A E H V T E V
 751/251
 CGT GAG TTC AAT GAG GGA CAG ATT GCC CCT
 R E F N E G Q I A P
 811/271
 AGC CAT GCC CAG TAT GTA GAA GAT CCT ATC
 S H A Q Y V E D P I
 871/291
 GAG CCA CCA CAG GTT GGC ACT GAA TTC ACA
 E P P Q V G T E F T
 931/311
 AGC TGC GTC GGA GGA ATG AAC AGA CGT CCA
 S C V G G M N R R P
 991/331
 GAT GGG CAA GTC CTG GGC CGA CGG TGC TTT
 D G Q V L G R R C F
 1051/351
 GAC CGG AAG GCA GAT GAA GAC AGC ATC AGA
 D R K A D E D S I R
 1111/371
 GGC GAT GCT TTC CGT CAG AAT ACA CAC GGA
 G D A F R Q N T H G
 1171/391
 TCC CCA GAT GAT GAG CTG CTG TAC CTA CCA
 S P D D E L L Y L P

Figure 17

1201/401	1231/411
GTG AGA GOT CGT GAG ACG TAC GAG ATG TTG	CTG AAG ATC AAA GAG TCA CTG GAG CTC ATG
V R G R E T Y E M L	L K I K E S L E L M
1261/421	1291/431
CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG	TAC AGG CAG CAG CAG CAG CAG CAG CAC CAG
Q Y L P Q H T I E T	Y R Q Q Q Q Q Q H Q
1321/441	1351/451
CAC CTA CTT CAG AAA CAT CTC CTT TCA GCC	TGC TTC AGG AAT GAG CTT GTG GAG CCC CGG
H L L Q K H L L S A	C F R N E L V E P R
1381/461	1411/471
GGA GAA GCT CCG ACA CAG TCT GAC GTC TTC	TTT AGA CAT TCC AAC CCC CCA AAC CAC TCC
G E A P T Q S D V F F	R H S N P P N H S
1441/481	
GTG TAC CCA TAG	
V Y P *	

Figure 17 cont'd

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q P S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCA CAG AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTT GAT GCC CTC TCT CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGC TTC GAT GTG TCC TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACC GAA CTG AAG AAG CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCC CCA CAG GGC GGT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAT GTC ACC GAG GTT GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCT ATC ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACA ACA GTC CTG TAC AAT TTC ATG TGT AAC AGC AGC TGC GTC GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGA ATG AAC AGA CgT CCA ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA gTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGG TGC TTT GAG GCC CGG ATC TGT GGT TGC CCA GGA AGA GAC CGG AAG GCA
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAC AGC ATC AGA AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG
 D E D S I R K Q Q V S D S A K N G D G T
 841/281
 AAG CGC CCT TTC CGT CAG AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAG CTG CTG TAC CTA CCA GTG AGA GGT CGT GAG ACG TAC GAG ATG TTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 CTG AAG ATC AAA GAG TCA CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAG CAG CAG CAG CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG
 Y R Q Q Q Q Q Q H Q H L L Q K Q T S M Q
 1081/361
 TCT CAG TCT TCA TAT GGC AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S Q S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG CCT TCC GTG AGC CAG CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC
 L P S V S Q L I N P Q Q R N A L T P T T

Figure 18

1201/401
 ATG CCT GAG GGC ATG GGA GCC AAC ATT CCT
 M P E G M G A N I P
 1261/421
 GAC ATG AAT GGA CTC AGC CCT ACC CAA GCT
 D M N G L S P T Q A
 1321/441
 TCC CAC TGC ACC CCA CCA CCG CCC TAC CCC
 S H C T P P P P Y P
 1381/461
 Agg Tcg ggc TGC TCA TCA TGC CTG GAC TAT
 R L G C S S C L D Y
 1441/481
 CAG ATT GAG CAT TAC TCC ATG GAT GAT TCG
 Q I E H Y S M D D L
 1501/501
 CAT GCC ATC TGG Aag GGC aTC CTG Gac CAC
 H A I W K G I L D H
 1561/521
 CaT CTC CTG AGG ACC CCA AGT GGT GCC TCT
 H L L R T P S G A S
 1621/541
 GGT GAA CGT GTG ATC GAT GCC GTG CGC TTT
 G E R V I D A V R F
 1681/561
 CGT GAC GAG TGG AAT GAT TTC AAC TTT GAC
 R D E W N D F N F D
 1741/581
 aTC AAA GAG GAA GGA GAA TGA
 I K E E G E *

1231/411
 ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA
 M M G T H M P M A G
 1291/431
 CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC
 L P P P L S M P S T
 1351/451
 ACA GAC TGC AGC ATT GTC AGT TTC TTA GCA
 T D C S I V S F L A
 1411/471
 TTC ACG ACC Cag ggg CTG Acc ACC ATC TaT
 F T T Q G L T T I Y
 1471/491
 GCa aGT CTG AAG ATc cct GAA CAG TTC CGA
 A S L K I P E Q F R
 1531/511
 AGG cAG CTG CAC GAC TTC TCC TCA CCT CCT
 R Q L H D F S S P P
 1591/531
 ACC GTC AGT GTG GGC TCC AGT GAG ACC CGT
 T V S V G S S E T R
 1651/551
 ACC CTC CGC CAG ACC ATC TCT TTT CCA CCC
 T L R Q T I S F P P
 1711/571
 ATG GAT TCT CGT CGC AAC AAG CAG CAG CGT
 M D S R R N K Q Q R

Figure 18 cont'd

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT 91/31
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAc ACA GAC CAC GCA CAG AAT AGC GTG ACG 151/51
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTT GAT GCC CTC TCT CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGC TTC GAT GTG TCC TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACC GAA CTG AAG AAG CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCC CCA CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAT GTC ACC GAG GTT GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCT ATC ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACA ACA GTC CTG TAC AAT TTC ATG TGT AAC AGC AGC TGC GTC GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGA ATG AAC AGA CGT CCA ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGG TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC CGG AAG GCA
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAC AGC ATC AGA AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG
 D E D S I R K Q Q V S D S A K N G D G T
 841/281
 AAG CGC CCT TTC CGT CAG AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAG CTG CTG TAC CTA CCA GTG AGA GGT CGT GAG ACG TAC GAG ATG TTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 CTG AAG ATC AAA GAG TCA CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAG CAG CAG CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG
 Y R Q Q Q Q Q H Q H L L Q K Q T S M Q
 1081/361
 TCT CAG TCT TCA TAT GGC AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S Q S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG CCT TCC GTG AGC CAG CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC
 L P S V S Q L I N P Q Q R N A L T P T T

Figure 19

1201/401

ATG CCT GAG GGC ATG GGA GCC AAC ATT CCT ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA
 M P E G M G A N I P M M G T H M P M A G

1261/421

GAC ATG AAT GGA CTC AGC CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC
 D M N G L S P T Q A L P P P L S M P S T

1321/441

TCC CAC TGC ACC CCA CCA CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC AGG ATT tGG Caa
 S H C T P P P P Y P T D C S I V R I W Q

1381/461

GTC TGA

V *

Figure 19 cont'd

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCA CAG AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTT GAT GCC CTC TCT CCA TCC CCT GCC ATT COC TCC AAC ACA GAT TAC CCG GGC CCA
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGC TTC GAT GTG TCC TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACC GAA CTG AAG AAG CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCC CCA CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAT GTC ACC GAG GTT GTG AAA CGA TCC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCT ATC ACG GGA AGG CAG AGC GTG CTG GTC CCT CAT GAG CCA CCA CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACA ACA GTC CTG TAC AAT TTC ATG TGT AAC AGC AGC TGC GTC GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGA ATG AAC AGA CGT CCA ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAa GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGG TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC CGG AAG GCA
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAC AGC ATC AGA AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GCT TTC
 D E D S I R K Q Q V S D S A K N G D A F
 841/281
 CGT CAG AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA TCC CCA GAT GAT
 R Q N T H G I Q M T S I K K R R S P D D
 901/301
 GAG CTG CTG TAC CTA CCA GTG AGA GGT CGT GAG ACG TAC GAG ATG TTG CTG AAG ATC AAA
 E L L Y L P V R G R E T Y E M L L K I K
 961/321
 GAG TCA CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG TAC AGG CAG CAG
 E S L E L M Q Y L P Q H T I E T Y R Q Q
 1021/341
 CAG CAG CAG CAG CAC CAG CAC CTA CTT CAG AAA CAT CTC CTT TCA GCC TGC TTC AGG AAT
 Q Q Q Q H Q H L L Q K H L L S A C F R N
 1081/361
 GAG CTT GTG GAG CCC CGG GGA GAA GCT CCG ACA CAG TCT GAC GTC TTC TTT AGA CAT TCC
 E L V E P R G E A P T Q S D V F F R H S
 1141/381
 AAC CCC CCA AAC CAC TCC GTG TAC CCA TAG
 N P P N H S V Y P *

Figure 20

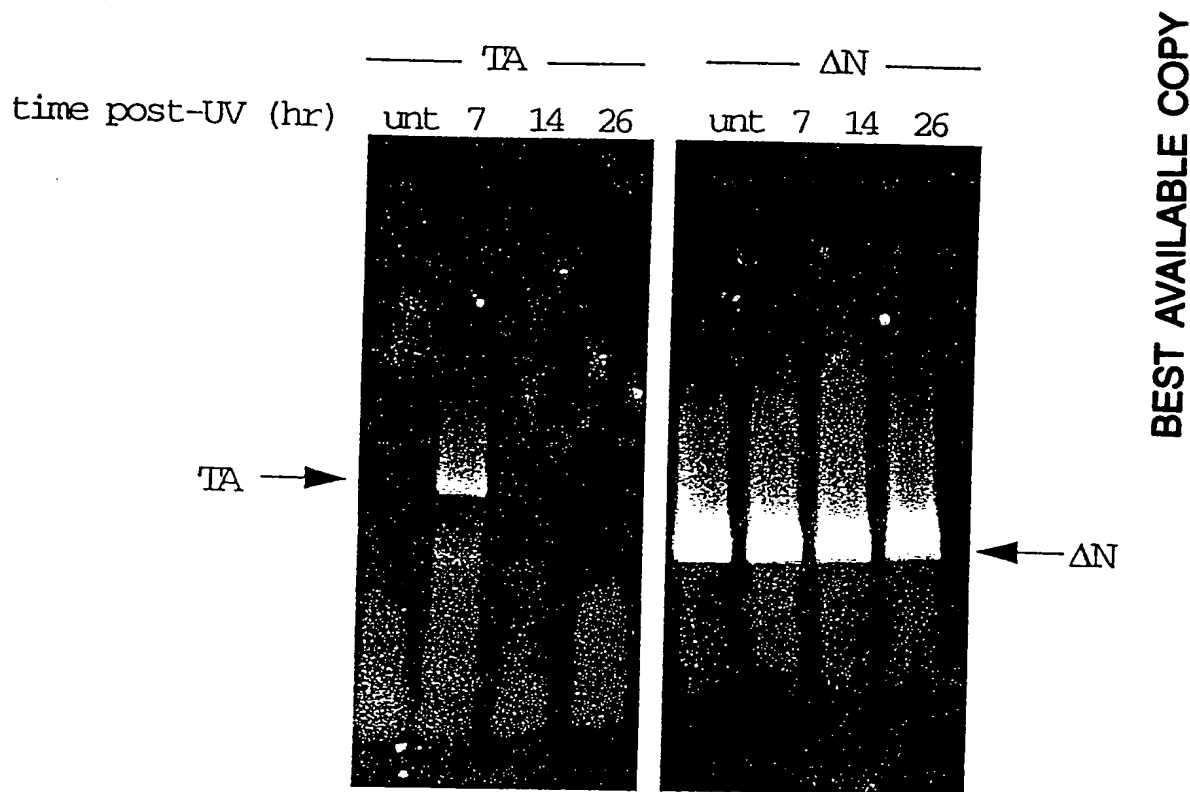


Figure 21. UV Induction of TA-p63 transcript. Primary human foreskin keratinocytes were exposed to UV irradiation (300J/m²), then harvested at times indicated. Total RNA was prepared, and RT-PCR on equal amounts of RNA was performed using primers specific for transactivating (TA) or truncated (ΔN) N-terminal domains of p63 (Yang et al., 1998). TA-p63 is not detectable in untreated (unt) keratinocytes, but expression is induced at 7hrs after UV treatment. ΔN-p63 appears to remain unchanged from untreated cells at all time points taken.

Figure 21

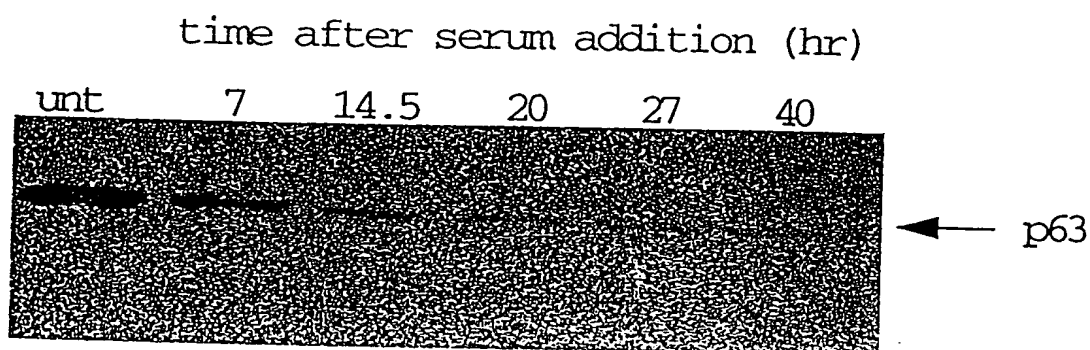


Figure 22. p63 protein expression decreases upon keratinocyte differentiation. Primary human foreskin keratinocytes were treated with 10% fetal bovine serum to induce differentiation, and harvested at times indicated. Cells were lysed in RIPA buffer, boiled in Laemmli buffer, and proteins fractionated by SDS gel electrophoresis. Immunoblotting was performed using an anti-p63 mouse monoclonal antibody, 4A4, which recognizes all p63 isoforms identified to date. p63 protein levels in keratinocytes are seen to decrease progressively upon differentiation, as compared to untreated (unt) samples.

Figure 22

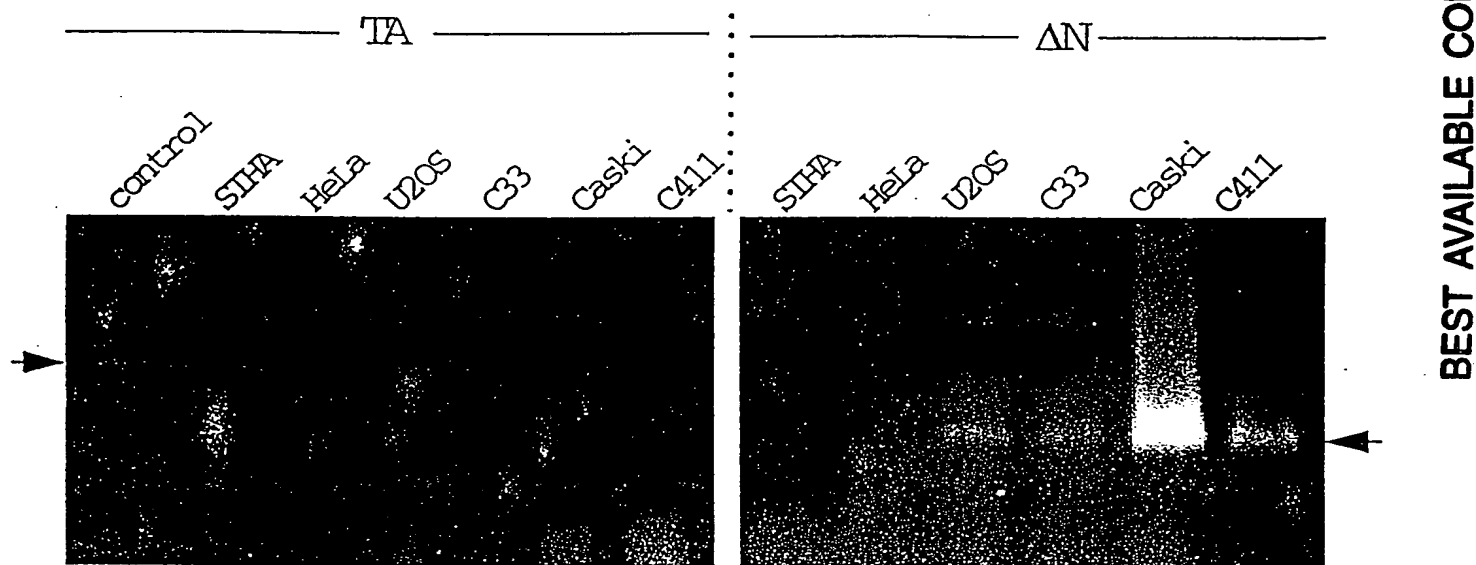


Figure 23. p63 RNA expression in human cancer cell lines. RT-PCR was performed on total RNA from several human tumor cell lines* using primers specific for transactivating (TA) or truncated (ΔN) N-terminal domains of p63 (see Figure 1), as indicated. Amongst these cell lines, only the ME180 control cell line showed a TA-p63 transcript. Instead, a majority showed expression of ΔN -p63, which has been demonstrated to act as a dominant negative protein towards both the tumor suppressor p53, as well as transactivating isoforms of p63.

*note: all are cervical carcinoma cell lines except U2OS, which is a human osteocarcinoma line.

Figure 23

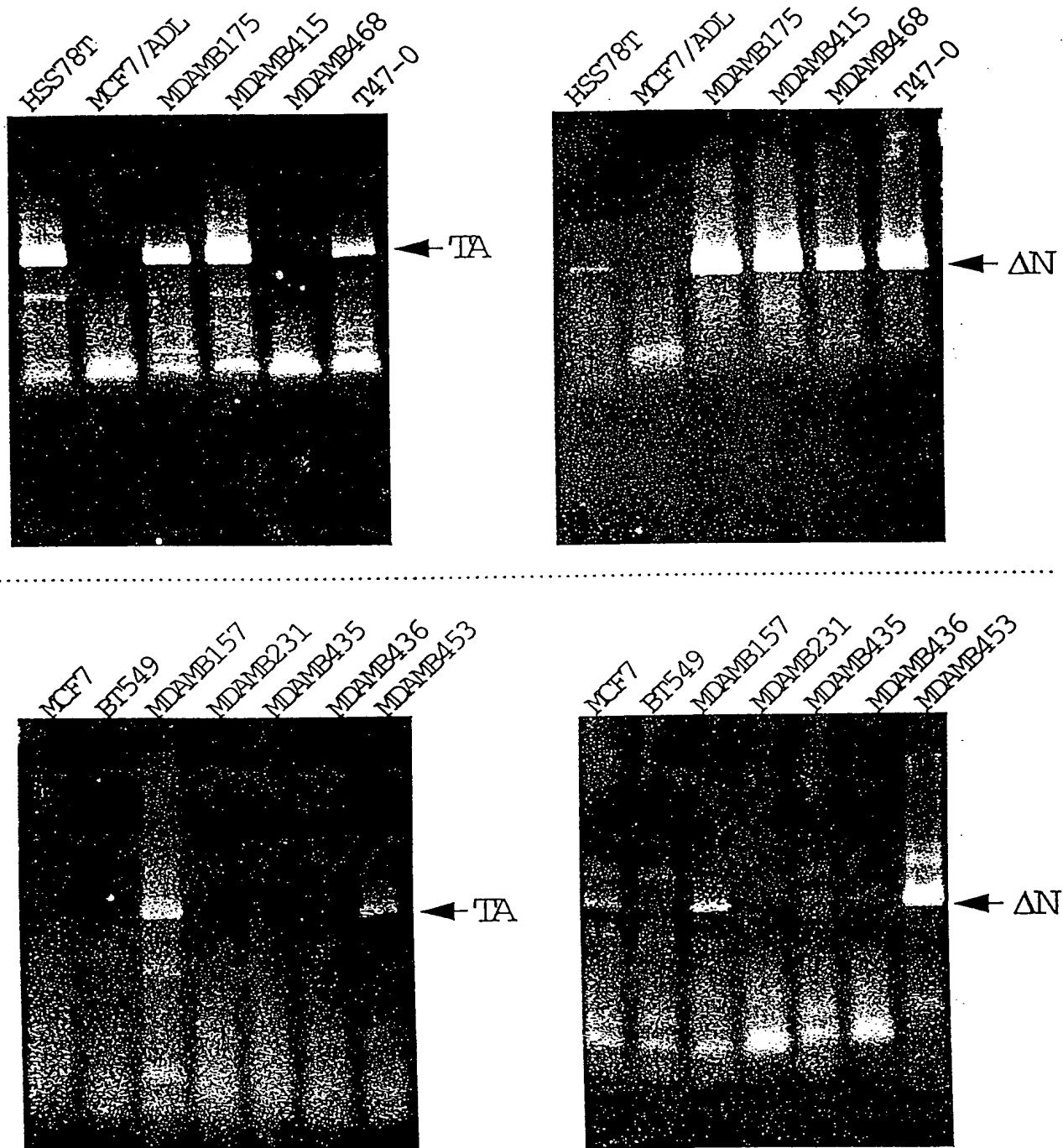
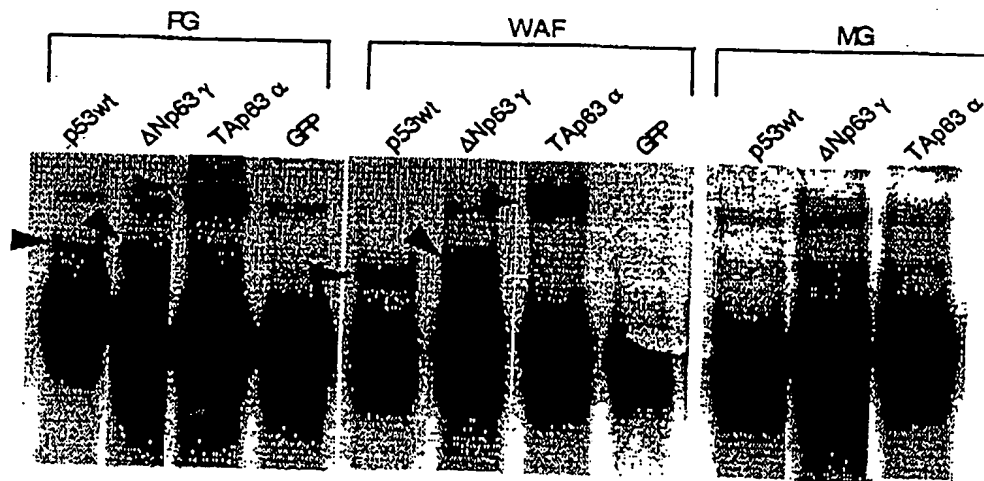


Figure 24. p63 RNA expression in human breast cancer cell lines. RT-PCR was performed on total RNA from breast cancer cell lines using primers specific for transactivating (TA) or truncated (Δ N) N-terminal domains of p63 (see Figure 1), as indicated. p63 was detected in a majority of cell lines tested, with some specimens containing both transcript isotypes.

Figure 24



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Electrophoretic mobility shift assays (EMSA) were performed using three separate, ³²P radiolabeled oligonucleotides: a minimal p53 binding sequence site (PG), a p53 binding site in the p21 promoter (WAF), and a mutant p53 binding site (MG, *Kern et al., 1992) with lysates of 293 human kidney cells transfected with p53, ΔNp63γ, TAp63α, and green fluorescent protein (GFP). p53, ΔNp63γ, and TAp63α lysates all yielded significant mobility shifts of both PG and WAF oligonucleotides (highlighted by arrows), while the GFP protein, included as negative control, failed to display a similar shift. None of the lysates showed a shift of the control, non-p53 binding oligonucleotide, MG, thus demonstrating the specificity of p53, ΔNp63γ, and TAp63α interactions with the p53-binding sites.

Figure 25